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EXAMINER	
NGUYEN, STEVEN H D	
ART UNIT	**PAPER NUMBER**
2665	32

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/482,054	MARGON, KENNETH	
	Examiner	Art Unit	
	Steven HD Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/23/04* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-61,64-71,74-77,80 and 81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-61,64-71,74-77,80 and 81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 33-34, 36-38, 40, 46, 49-53, 56, 60-61, 66-67 are objected to because of the following informalities:

As claims 33-34, 36-38, 40, 46, 49-53 must depend on claims 32 or 33.

As claims 56, 60-61, 66-67 must depend on claim 55.

As claim 41 must depend on claim 40

As claim 48 must depend on claim 47.

Appropriate correction is required because a method claim can not depend on an apparatus claim or vice versa.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 15-19, 24, 32, 42-46, 50, 55, 66, 68-69, 74, 76 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Haim (GB 2293943).

Regarding claims 1, 32, 55, 68-69 and 76, Haim discloses (Fig 1 and Pages 1-2) a system comprising a base station (Fig 1, Ref central) that provides a forward channel signal (Fig 1, Ref central); and a plurality of remote stations (Fig 1, Ref RTUs), wherein each remote station monitors said forward channel signal, monitors a reverse channel within an assigned period of

time in a clear channel assessment interval and provides a reverse channel signal when said reverse channel is clear within said assigned period of time wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations (Page 1, lines 27 to page 2, lines 13, wherein the remote unit has a monitoring circuit for monitoring the forward channel signal in order to receive the signal and reverse channel for detecting if the reverse channel is free or not during its assigned time slot in the times "clear channel interval" before transmitting).

Regarding claims 15 and 42, Haim discloses said assigned period of time is a predetermined dwell time and wherein each of said remote stations monitor said clear assessment channel interval during said predetermined dwell time (Page 1, lines 27 to page 2, lines 13, wherein the remote unit is assigned a time slot for sensing a channel is free or busy).

Regarding claims 16 and 43, Haim discloses each of said dwell times is of equal duration (Page 2, lines 10).

Regarding claims 17 and 44, Haim discloses each remote station is dynamically assigned a dwell time (Page 2, lines 10 and Page 8, lines 25-30).

Regarding claims 18 and 45, Haim discloses dwell times are assigned to said plurality of remote stations in a round robin fashion (Page 2, lines 10 and Page 8, lines 25-30).

Regarding claims 19 and 46, Haim discloses said forward channel signal is provided during a predetermined forward channel interval (Fig 6, Ref 200) and said reverse channel signal is provided during a predetermined reverse channel interval (Fig 6, Ref 210).

Regarding claims 24, 50, 66, 74 and 80, Haim discloses said forward channel signal and said reverse channel signal are wireless signals (Fig 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 2-3, 5-7, 25, 33-35, 40, 56-57, 61, 70-71 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim (GB 2293943).

Haim does not fully disclose the claimed invention in his admitted prior art. However, Haim discloses said base station receives information encoded on said reverse channel signal and wherein each remote station receives information encoded on said forward channel signal; said forward channel signal and said reverse channel signal include data packets; forward channel includes an address; each remote station is assigned a unique remote station address and wherein each remote station accepts information encoded on said forward channel signal when said address of said forward channel signal matches said assigned unique remote station address; a remote station address is assigned a priori to said remote station (Fig 4, Ref 30 for encoding and decoding the data which transmitted or received by the base station and remote unit; Page 6, lines 3-14) and forward channel signal and said reverse channel signal are modulated signals each having carrier signals with a frequency of approximately 2 GHz (Fig 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method for encoding the information such packet having a priority and address before transmitting between the central and remote units as disclosed by

Haim's improved system into Haim's admitted prior arts. The motivation would have been to provide a security for transmitted data.

6. Claims 1-3, 5-7, 15-19, 24-25, 32-35, 40, 42-46, 50, 55-57, 61, 66, 68-71, 74, 76-77 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi (USP 5682604) in view Serfaty (USP 5572546).

As claims 1-3, 5-7, 15-19, 24-25, 32-35, 40, 42-46, 50, 55-57, 61, 66, 68-71, 74, 76-77 and 80, Kashi discloses a base station having a transceiver (Fig 2, Ref 10) for providing a forward channel (Fig 7, Ref 200), a remote station (Fig 2, Ref 11) for monitoring "listening or sensing" the forward channel signal and monitoring reserve channel within a clear "free" channel access interval that assigned to the remote units and in sequential order with at least one other remote (Fig 7, time to sense channel free and col. 1, lines 30-39 and col. 6, lines 7-13) and providing reserve channel signal if it's clear "free" (Fig 7, Ref 210). See Abstract, col. 1, lines 6 to col. 4, lines 63 and Fig 1-7; a base station (fig 2, ref 10) and a remote station (Fig 2, Ref 11) inherent receive and transmit an encoded signal between them as a data packet (See Fig 4 and col. 4, lines 22-37 as claim 2-3, 40 and 61); a priority and unique address of remote station for receiving the forward information from the central station (See col. 4, line 22-37 as claimed 5-7, 33-35, 56-57, 70-71 and 77); a forward and reserve channel signal is provided during its predetermined interval (See Fig 6 as claimed 19, 46, 73 and 79) and a wireless communication system having frequency (Fig 2 as claimed 24-25, 50, 66, 74 and 80). However, Kashi fails to disclose a method and system for dividing a clear access interval into a plurality of time slot wherein each time slot is assigned to each mobile unit. In the same field of endeavor, Serfaty discloses a system which including a upstream and downstream channel wherein the downstream

channel and sensing time interval which is divided into a plurality of time slots wherein each mobile is assigned a time slot for sensing if the uplink channel is free in order to transmit the reverse signal to the receiving station (See col. 5, lines 9-32).

Since, Kashi suggests that each mobile station has a different time such time slot to sense free channel before transmitting a reverse signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for dividing a sensing interval time into a plurality of time slots wherein each time slot assigned to each mobile unit as disclosed by Serfaty's system and method into Kashi's system and method. The motivation would have been to reduce the collision and improve the throughput of the system.

7. Claims 4, 26-29, 41, 51-52, 67, 75 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi and Serfaty as applied to claims 1, 32, 55, 68-69 and 76 above, and further in view of Kubler (USP 5726984).

As claims 4, 26-29, 41, 51-52, 67, 75 and 81, Kashi and Serfaty do not fully disclose the data packet including a digitized voice and data. Kubler discloses a data packet including digitized voice and data (col. 3, lines 54-64) and a half, full duplex and the signals are transmitted via electrical or optical medium (col. 21, lines 31-53).

Since a packet that includes voice and data is well known and expected in the art at the time of invention was made. Since, both the concept and the advantages of using half and full duplex for transmitting voice and data packet in a wireless and wireline system well known and expected in the art. Therefore, it would have been obvious to apply the data packets including the digitized voice and data for transmitting between the base and remote station as disclosed by

Kubler into the system and method of Kashi and Serfaty. The motivation would have been to integrate a wireless network with a wireline network such as Internet and turn the Internet into a reliable telecommunication network.

8. Claims 8-11, 36-37 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi and Serfaty as applied to claims 1, 32 and 55 above, and further in view of Dobbins (USP 5751971).

As claims 8-11, 36-37 and 60, Kashi and Serfaty do not fully disclose an address is broadcast, a semi broadcast, IP. Dobbins discloses a broadcast, group and Internet address (Col. 4, lines 5-65). Since, both the concept and the advantages of using broadcast, group and Internet address in a wireless system is well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign an address to a remote unit in order to route the packets in the system as disclosed by Dobbins into Kashi and Serfaty. The motivation would have been to obtain an efficiency system.

9. Claims 12-14, 38-39 and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi and Serfaty as applied to claims 1, 32 and 55 above, and further in view of Orsic (USP 6147986).

As claims 12-14, 38-39 and 58-59, Kashi and Serfaty do not fully disclose the claimed invention. However, in the same field of endeavor, Orsic discloses a method of assigning a first remote station address from a first set of addresses in a first zone "cell or sector" and a second remote station address from a second set of addresses in a second zone "cell or sector"; wherein set of addresses form an Internet subnetwork (Fig 1, wherein the base station assigning IP address to mobile when the mobile is located within a cell). Since, both the concept and the

advantages of assigning a different address to each remote to different zone having an Internet subnetwork are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign a different address to each remote to different zone having an Internet subnetwork as disclosed by Orsic into the system of Kashi and Serfaty. The motivation would have been to easily locate the remote station in the zones.

10. Claims 20-22, 30-31, 47-48, 53-54 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi and Serfaty as applied to claims 1, 32 and 55 above, and further in view of Choi (USP 6272117).

As claims 20-22, 30-31, 47-48, 53-54 and 64, Kashi and Serfaty do not fully disclose the claimed invention. However, Choi discloses a method of transmitting a control packet for synchronizing the base station and remote station and a guard time for the channels (Fig 7). Since, both the concept and the advantages of using guard time and control packet for synchronization in a wireless system are well known and expected in the art . Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to synchronize the base station and remote station by broadcasting a control packet to the mobile as disclosed by Choi into the system of Kashi and Serfaty. The motivation would have been to adjust a clock of the remote station to coincide with the base station.

11. Claims 23, 49 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi and Serfaty as applied to claims 1, 32 and 55 above, and further in view of Mauney (USP 6484027).

As claims 23, 49 and 65, Kashi does not disclose a system being used in IPMA environment. However, in the same field of endeavor, Mauney discloses a wireless system which includes Internet protocol multiple access (col. 1, lines 55-57). Since, both the concept and the advantages of using Internet protocol in a wireless system is well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was apply IP into a multiple access system as disclosed by Mauney into the system of Kashi and Serfaty. The motivation would have been to reduce the cost of telephone call.

12. Claims 4, 26-29, 41, 51-52, 67, 75 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim as applied to claims 1, 32, 55, 68-69 and 76 above, and further in view of Kubler (USP 5726984).

As claims 4, 26-29, 41, 51-52, 67, 75 and 81, Haim does not fully disclose the data packet including a digitized voice and data. Kubler discloses a data packet including digitized voice and data (col. 3, lines 54-64) and a half, full duplex and the signals are transmitted via electrical or optical medium (col. 21, lines 31-53).

Since a packet that includes voice and data is well known and expected in the art at the time of invention was made. Since, both the concept and the advantages of using half and full duplex for transmitting voice and data packet in a wireless and wire line system well known and expected in the art. Therefore, it would have been obvious to apply the data packets including the digitized voice and data for transmitting between the base and remote station as disclosed by Kubler into the system and method of Haim. The motivation would have been to integrate a wireless network with a wire line network such as Internet and turn the Internet into a reliable telecommunication network.

13. Claims 8-11, 36-37 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim as applied to claims 1, 32 and 55 above, and further in view of Dobbins (USP 5751971).

As claims 8-11, 36-37 and 60, Haim does not fully disclose an address is broadcast, a semi broadcast, IP. Dobbins discloses a broadcast, group and Internet address (Col. 4, lines 5-65). Since, both the concept and the advantages of using broadcast, group and Internet address in a wireless system is well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign an address to a remote unit in order to route the packets in the system as disclosed by Dobbins into Haim. The motivation would have been to obtain an efficiency system.

14. Claims 12-14, 38-39 and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim as applied to claims 1, 32 and 55 above, and further in view of Orsic (USP 6147986).

As claims 12-14, 38-39 and 58-59, Haim does not fully disclose the claimed invention. However, in the same field of endeavor, Orsic discloses a method of assigning a first remote station address from a first set of addresses in a first zone "cell or sector" and a second remote station address from a second set of addresses in a second zone "cell or sector"; wherein set of addresses form an Internet sub network (Fig 1, wherein the base station assigning IP address to mobile when the mobile is located within a cell). Since, both the concept and the advantages of assigning a different address to each remote to different zone having an Internet sub network are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign a different address to each remote

to different zone having an Internet sub network as disclosed by Orsic into the system of Haim. The motivation would have been to easily locate the remote station in the zones.

15. Claims 20-22, 30-31, 47-48, 53-54 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim as applied to claims 1, 32 and 55 above, and further in view of Choi (USP 6272117).

As claims 20-22, 30-31, 47-48, 53-54 and 64, Haim does not fully disclose the claimed invention. However, Choi discloses a method of transmitting a control packet for synchronizing the base station and remote station and a guard time for the channels (Fig 7). Since, both the concept and the advantages of using guard time and control packet for synchronization in a wireless system are well known and expected in the art . Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to synchronize the base station and remote station by broadcasting a control packet to the mobile as disclosed by Choi into the system of Haim. The motivation would have been to adjust a clock of the remote station to coincide with the base station.

16. Claims 23, 49 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haim as applied to claims 1, 32 and 55 above, and further in view of Mauney (USP 6484027).

As claims 23, 49 and 65, Haim does not disclose a system being used in IPMA environment. However, in the same field of endeavor, Mauney discloses a wireless system that includes Internet protocol multiple access (col. 1, lines 55-57). Since, both the concept and the advantages of using Internet protocol in a wireless system is well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention was apply IP into a multiple access system as disclosed by Mauney into the system of Haim. The motivation would have been to reduce the cost of telephone call.

Response to Arguments

17. Applicant's arguments filed have been fully considered but they are not persuasive.

In response to pages 13-16, the applicant states that Kashi and Serfaty fail to disclose a clear channel interval which is divided into a plurality of time slots wherein each time slot is assigned to each mobile station. In reply, Kashi discloses a method and system for transmitting data packet between the units and central station comprising a forward channel, reverse channel and sensing channel interval "clear channel interval". The units senses if the reverse channel is free during a time to sense free channel (See Figs 6-7). Serfaty discloses a system and method for dividing the sense interval into a plurality time slot and each time slot is assigned to each unit. The unit uses the assigned time slot to sense a free channel before transmitting a reverse signal "reads on ack signal" to the central unit (See col. 5, lines 9-19). Since, Kashi suggests that each unit is assigned a time slot for transmitting to the central station and each mobile unit will has a different time to sense for a free channel (col. 1, lines 29-32, each unit is assigned a time for sensing if the reverse channel is free or not before transmitting a reverse signal; So 10 time slots read on a clear channel interval which is divided into a plurality of time slots wherein each unit is assigned a time slot to sense if the channel is free or not).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so

long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kashi discloses a method and system for transmitting data packet between the units and central station comprising a forward channel, reverse channel and sensing channel interval "clear channel interval". The units senses if the reverse channel is free during a time to sense free channel (See Figs 6-7). Serfaty discloses a system and method for dividing the sense interval into a plurality time slot and each time slot is assigned to each unit. The unit uses the assigned time slot to sense a free channel before transmitting a reverse signal "reads on ack signal" to the central unit (See col. 5, lines 9-19). Since, Kashi suggests that each unit is assigned a time slot for transmitting to the central station and each mobile unit will has a different time to sense for a free channel (col. 1, lines 29-32, each unit is assigned a time for sensing if the reverse channel is free or not before transmitting a reverse signal; So 10 time slot is read on a clear channel interval which is divided into a plurality of time slot wherein each unit is

assigned a time slot to sense if the channel is free or not). The motivation would have been to prevent a collision, improve the throughput of the system.

Therefore, the teaching of Kashi and Serfaty perform the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
April 23, 2004